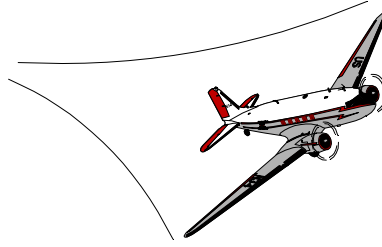


SPECIAL AIRWORTHINESS INFORMATION BULLETIN

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation

**Federal Aviation
Administration**

No. CE-02-43
September 10, 2002

We post SAIBs on the internet at "av-info.faa.gov"

This is information only. Recommendations are not mandatory.

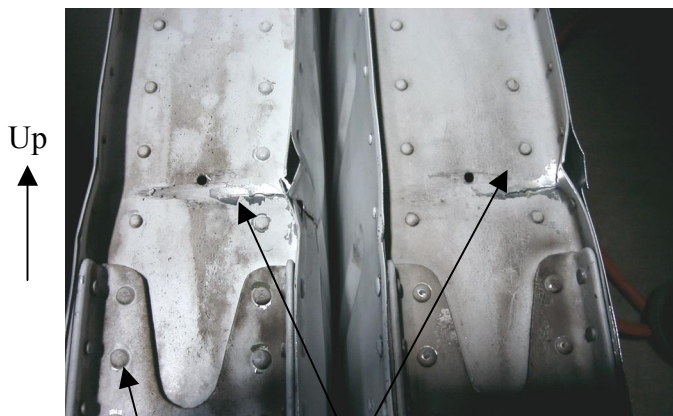
Introduction

This Special Airworthiness Information Bulletin (SAIB) alerts you, an owner or operator, of Piper PA-28 series airplanes, of possible cracks in the vertical stabilizer rear spar and skin.

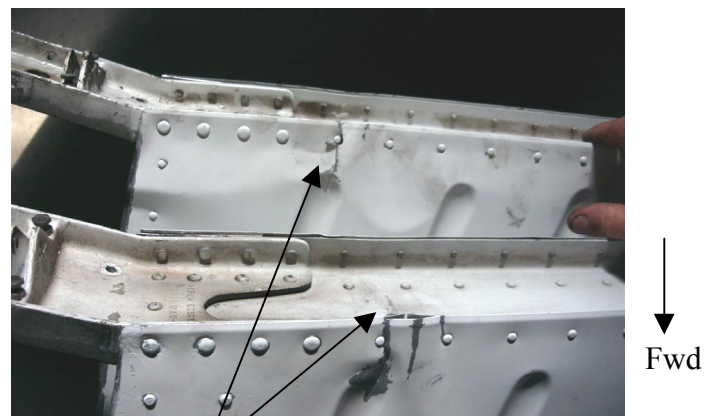
Background

This SAIB is a result of two reports of cracked vertical stabilizer rear spars. Both airplanes were 1973 PA-28-180's. The airplanes were used as training airplanes throughout their history and were last flown by two different pilots. Both airplanes returned from flight with the damage shown in the photos below. The airplanes just received a maintenance inspection and no cracks were noted. The pilots also reported that there were no cracks in the vertical stab. The aircraft had total times of 13,810 and 14,155 hours when the damage was discovered.

The cracks are located near the base of the vertical stabilizer rear spar, about 1 to 2 inches above the top of the fuselage attach fitting. The pictures below show the location, relative size, and orientation of the cracks in both stabilizers.



View looking forward
at vertical stabilizer aft
spar and fitting



Side view showing vertical
stabilizer aft spar, fitting,
and skin

Recommendation

After reviewing the data surrounding the incidents stated above, we recommend an immediate inspection of the vertical stabilizer rear spar with either visual and/or penetrant inspection of the spar and skin (see Advisory Circular 43-3A and 43.13-1B for inspection procedures). Note that removal of the rudder may be required to provide adequate access. We recommend you have these areas inspected on a recurring basis during annual and/or 100 hour inspections.

If any evidence of cracking is detected, we recommend you have the damaged parts replaced or repaired before further flight. Also we request you notify the FAA if damage is found, at the address listed below. Include as much information as possible, including model number, serial number, time in service on aircraft and parts, physical description of damage (location, length, orientation, parts cracked, etc.), and if possible, pictures of the damaged area.

Note: Based on current information we, the FAA, only recommend these actions. We will continue this investigation and analyze any added information. We may require additional actions, such as the issuance of an Airworthiness Directive based on this analysis.

For further information, contact

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